MONITORING & EVALUATION REPORT--2005
LOWER GUNNISON UNIT
COLORADO RIVER SALINITY CONTROL PROJECT
USDA-NRCS

White-Face Ibis

Linear Sprinkler Irrigation System

Irrigation Pump & Rotating Screen

IWM MONITORING & EVALUATION

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M&E EXECUTIVE SUMMARY
HYDROSALINITY

Project: Lower Gunnison

- The project plan is to treat **135,000** acres with improved irrigation systems.
- To date, **45,241** acres have improved irrigation systems applied.
- The project plan is to reduce salt loading to the Colorado River system by **166,000** tons of salt.
- In FY 2005, salt loading has been reduced by **8,125** tons/year.
- The cumulative salt load reduction is **76,173** tons/year.

Cost effectiveness –

- The ***planned*** cost per ton of salt saved with prior year contracts is **$54.72/ton**. This is based on the following formula:

FA + TA = Total Cost X Amortization Factor = Total amortized cost
Total amortized cost divided by total annual tons salt saved = Cost/Ton

FA is total dollars obligated in EQIP & Parallel Program (including wildlife).
TA is 67% of the FA (This number includes education and monitoring).
Amortization factor for 2005 is .0736.

Hydro Salinity Monitoring & Evaluation Summary

2005

In the past various irrigation systems were monitored and evaluated with respect to their average seasonal efficiencies and overall average deep percolation reduction, which is one of the principle indicators of salinity.

The following is an analysis utilizing past summary base data to reflect overall deep percolation reduction, with respect to the various irrigation systems applied to date.

- Irrigation Systems Applied = **4,014 Acres**
- Unimproved acres treated = **45,241 Acres**
- Improved surface irrigation systems installed= **3,526 Acres**
- Irrigation water conveyance delivery/ gated pipe
  Acres treated = **39,529 Acres**
  Average Efficiency **53%**
- Sprinkler & Drip irrigation systems installed= **488 Acres**
  (Includes Linear, Center Pivot, Side Roll, & Big Gun)
  Acres treated= **6,184 Acres**
  Average Efficiency= **75%**
- **Overall Deep Percolation Reduction= 24,552 Acres**
- **Overall Average systems efficiency= 55%**

LOWER GUNNISON IRRIGATION MONITORING & EVALUATION
2005-REPORT
USDA-NRCS

Introduction

Since 1990, the Natural Resources Conservation Service (NRCS) has been applying improved irrigation systems and practices with cooperators in the Lower Gunnison Salinity Control Area, through the Colorado River Salinity Control Program including both EQIP and Basin Funding. All EQIP and Basin applications go thru a ranking process that yields the most cost-effective projects on cost / ton of salt saved.

In the past, the irrigation practices of several cooperators have been monitored with flow measuring equipment to evaluate the effectiveness and efficiency of the various irrigation systems in the reduction of deep percolation of irrigation water.

Due to the recommendations of the 2003 Monitoring & Evaluation Report, the monitoring efforts by NRCS were forestalled. The report stated that monitoring of irrigation events have been successful over the past several years and to continue further monitoring would only be redundant. Future monitoring efforts should focus on the conversion of larger agricultural land tracts to smaller acreages. However, with the large scale conversion of larger agricultural land tracts into smaller developed acreages and their potential impacts to Salinity and Selenium, the contributing members of this report felt that monitoring these impacts should be considered.

The conversion of Agricultural land into these smaller tracts is causing complexities in the administration of landowner contracts and has dramatically increased staff work load for assessment, planning, and engineering requests of multiple irrigation systems per land unit. This land conversion into smaller tracts is also increasing salt costs and unit costs per system.

In 2003, two Irrigation Water Management Specialists were added to the Shavano and Delta Conservation District's staff to assist in delivering the Salinity Program. The conversion to high-tech efficient and improved irrigation systems has also increased the workload for NRCS office & IWM Staff.

Evaluations of the various irrigation systems were done along with interviews with the landowner and/or farm operators. Cooperators were assisted with the proper operation, the understanding and the implementation of their installed systems and irrigation water management plans. Request's for future assistance was scheduled, for the 2006 irrigation season.

Landowners are implementing their IWM Plan and do realize that the Operation & Maintenance of their irrigation system is their responsibility. No major maintenance problems were reported.

2005 HIGHLIGHTS & Accomplishments

The highlights of 2005 IWM Projects included Irrigation Water Management activities on Randy Meaker's Center Pivot Sprinkler irrigation systems, Drip-tape irrigation on onions, and the operation of a newly installed, 2597 Ft. Linear Sprinkler at the Randy Hines Farm.

IWM Accomplishments include over **251** landowner contacts and/or farm visits to address IWM Issues and a Total of **85** IWM Farm Contract evaluations were accomplished during the 2005 irrigation season.

Recommendations for Future Irrigation Water Management

1. Future monitoring efforts should focus on the conversion of large agricultural tracts into smaller tracts to monitor the effects the change in land use has had on Salinity and Selenium loading. One area of concern is the Bostwick Park Area in Montrose County.
2. It is recommended that IWM Specialists help NRCS Staff in the implementation of the new statewide, IWM Plan that will be a guide to help the landowner/irrigators make more informed irrigation decisions and to provide irrigation records necessary for IWM Certification.
3. It is recommended that the Irrigation Water Management Specialists continue to provide assistance to the landowners during the First season of use, for the improved irrigation systems installed under the Salinity Program.
4. It is also recommended that the IWM Specialist continue to use a random selection process to follow up with a representative sample of all the systems installed with the Salinity Program funds to evaluate the current efficiency and the operation and maintenance of the designed irrigation systems.
5. The remaining time of the IWM Specialists should be spent assisting landowners whom are requesting a higher level of irrigation water management and technical improvements. This would include technical assistance through workshops, field days, tours, news & media events and technical references.
6. The Goal of IWM program is to provide the necessary assistance and information to help the Salinity Program achieve the level of salinity reduction above what the program originally planned for. This IWM activity will provide the lacking and much needed follow up assistance with the landowners to help them maximize their irrigation efficiencies and success.

2005 IRRIGATION EFFICIENCY: (On IWM Systems Evaluated)

TYPE OF IRRIGATION SYSTEM	% OF MONITORED EFFICIENCY
Open ditch	35%
Open ditch w/ siphon tubes	40%
Concrete ditch w/siphon tubes	50%
Gated pipe	50%
Underground pipe & Gated pipe	50%
Underground pipe/Gated pipe/Surge	55%
Center Pivot Sprinkler	90%
Big Gun Sprinkler	70%
Side roll Sprinkler	75%
Micro spray	90%
Drip Irrigation	95%

2005 COMPARISON OF IWM PRACTICES & ACREAGES MONITORED

IRRIGATION TYPE	ACREAGE
Concrete Ditch	245.7
Gated Pipe & Underground Pipe	3944.7
Sprinkler---Center Pivot Linear Solid Set/Other	256.9 129.0 16.25
Earthen Ditch & Siphon Tubes	12.0
Drip Irrigation (Surface)	8.0
Uncontrolled Flood	291.93
Controlled Flood	1127.2
	6152.18---Total Acres
**Note: Controlled flood== One ranch operation (Scenic Mesa)	

SUMMARY OF EVALUATED PRACTICES BY ACREAGE & CROP TYPE

Practice & Percent of acres	**Alfalfa / Grass 39%**	**Pasture 27%**	**Row Crops 33.25 %**	**Turf &Wildlife Plantings .75%**
Gated Pipe-All	2127.6	275.2	1908.1	
Uncontrolled Flood		291.93		
Controlled Flood		1096.6		
Center Pivot Sprinkler	256.9			
Linear Sprinkler			129.0	
Side roll / Other				16.25
Drip (Surface)			8.0	
Earthen ditch/ Siphon Tubes/Other	12.0			30.6
Total Acres 6152.18	**2396.5**	**1663.73**	**2045.1**	**46.85**

SUMMARY:

1. Program delivery is changing because of changes in land unit treatment size and land use coupled with the complexity of contract development.
2. There is increased producer interest adapting to more technological advanced sprinkler and drip irrigation systems.
3. Future monitoring efforts should focus on the conversion of large tracts of agricultural land into smaller tracts. One example is east side of the Uncompahgre River in the Bostwick Park Area. (110 homes planned on 435 acres)
4. New beginning young farmers are emerging in Delta County who are focusing there interest and needs on small acreages with more specialized crops.

WILDLIFE

2005 MONITORING & EVALUATION REPORT
LOWER GUNNISON EQIP PRIORITY AREA

HISTORY:

Salinity control work by NRCS has gone through 3 different phases. The first was under the Colorado River Salinity Control program from 1984-1995. Phase 2 was called interim-EQIP and lasted for only fiscal year 1996. The third phase from 1997 to present is funded under the EQIP Program which has included funds from the Basin States Parallel Program. All 3 phases are covered by the same NEPA process and documents that report **replacement of wildlife values foregone (mitigation) and impacts to wildlife will be accounted using a value system**. NRCS chose to use the Habitat Evaluation Procedure (HEP) developed by the U.S. Fish and Wildlife Service for tracking "on farm" changes in wildlife habitat values. Six species models were chosen to represent different aspects of wildlife habitat in the unit that may be impacted by the project. Pheasant was chosen to represent habitat diversity, edge effect and edge habitat. Yellow warbler represents cottonwood-willow and other woody habitat associated with irrigation ditches and tail water. Mallard breeding habitat represents shallow wetlands and nesting habitat surrounding these wetlands. Mallard –winter habitat represents winter roosting areas (large water bodies and ice free water) and management of crop residues. Meadow vole represents sedge- rush wet meadows often associated with leaky ditches and inefficient irrigation. Marsh wren represents cattail- bulrush (robust emergents) wetlands and the screech owl is associated with groups of large deciduous trees. The models are custom models that underwent peer review and were developed explicitly for this project with the assistance of USFWS. Changes in wetland values are supposed to be tracked using the Avian Richness Evaluation Method (AREM) developed by Paul Adamus under contract with the Environmental Protection Agency (EPA). Refer to the 1994 Monitoring and Evaluation Plan for the Lower Gunnison Unit for details on monitoring methods used under the Colorado River Salinity Control Program.

METHODS

HEP is very labor intensive. Through 1995 habitat was evaluated and a HEP analysis was completed on more than 70% of all contracted acres before and after application of salinity control practices. Reductions in staff made this method unfeasible. To make the workload more manageable a statistical analysis of HEP data collected through 1998 was conducted to determine adequate sample size needed to calculate mean habitat suitability indexes (HSI) with 95% confidence the calculated mean is within + or - .1 of the real mean. HSI's are indexes ranging from 0 to 1.0 of the habitat value for selected wildlife species. The indexes are calculated using measurements of various habitat variables that are identified in habitat models (See 1994 Lower Gunnison Unit Monitoring and Evaluation Plan for complete details of the HEP procedure used). In 1999 and 2000 additional data was collected, desired sample sizes were achieved, and mean HSI values were calculated. The mean HSI for species models for 6 wildlife species were calculated for 2 separate categories; operating units not applying wildlife practices and operating units applying wildlife. In 2003 the Colorado State Program Manager ordered all WHIP and WRP contracts that had been applied in the salinity area to be counted for habitat replacement. These contracts were entered into the spreadsheet as plans with wildlife and plans applying wildlife. These indexes were then multiplied with the average acres of habitat found on the operating units for each wildlife species to obtain Habitat Units Values (HUV's). To estimate project impacts HUV's were calculated both before and after project application. Analysis of data in 2001 indicated additional inventories are needed for yellow warbler and marsh wren to obtain the desired confidence levels. A portion of the additional inventories have been completed, however more will be done during the 2005 and 2006 field seasons.

During the winter of 2004, NRCS biologists reviewed results of the previous year's HEP analysis and discovered some errors in how conservation plans without wildlife practices were being compared to plans with wildlife practices. The errors in the spread sheet were rectified which resulted in large changes in Habitat Unit Values credited to the project. NRCS biologist

looked at the new calculations with much scrutiny and determined the new calculation method was the correct way to account for changes in Habitat Unit Values.

A spread sheet was developed to track additional information that may be useful in evaluating the project in reference to wildlife habitat and mitigation goals. Data such as wetland values, number of contracts planning and/or applying wildlife practices, acres of land managed for wildlife, and dollars spent on wildlife were recorded. The data was then analyzed to determine effectiveness of wildlife habitat replacement efforts.

Applications for financial assistance were awarded funding through ranking processes. The processes varied from 1996-2004 but incentives for applying wildlife habitat were included in all of them. In 1996 Interim-EQIP wildlife practices were prioritized the same as they were under the Colorado River Salinity Program. Under this system, applicants planning to apply wildlife practices received 3 to 5 extra points out of a possible 46. In 1997 ranking systems began to include cost-benefit computations and wildlife practices were given 2 extra points/acre not to exceed 10 total points. Wildlife practices are relatively expensive and with the cost benefit computations and 10 point maximum many wildlife practices were not being funded. In an attempt to increase wildlife funding ranking points were increased in 1998, to 6 points/acre with a 30 point maximum for wetland habitat and 4 points/acre with a 20 point maximum for upland habitat. In 1999 the Montrose field office again increased points awarded for wildlife habitat development to 30 points/acre with a maximum of 150 points for either upland or wetland habitat. Delta created a sub fund of $37,800 to be spent only on wildlife habitat development. Wildlife applications were ranked using the system developed for the Wildlife Habitat Incentives Program. If money was left in the wildlife sub-fund it was transferred to salt control funds. In 2000 Montrose used the same ranking they did in 1999. In 2000 sub-funds were no longer allowed so Delta changed their ranking to 10 points/acre for upland or wetland habitat with a maximum of 50 points. Ranking procedures remained unchanged in 2003, but in 2004 a new ranking procedure using the habitat evaluation index change from existing condition to planned condition was used. Also in 2004, a separate EQIP fund for wildlife habitat projects in salinity areas was set up by the NRCS State Office.

In 2004, the Basin States Parallel Program (BSPP) was approached to assist with funding wildlife projects to offset salinity project impacts. The forum that oversees the program agreed and has since funded 10 projects in the Lower Gunnison unit for a total of $301,152.00. Data for those projects is included in the tables below with other BSPP data.

RESULTS

CRSCP contracts are all now completed so there will be no further changes for those figures. In 2005, all the CRSCP contracts in the Lower Gunnison were completed. The data totals for CRSCP do not include canceled contracts. The totals and percentages are for contract dollars actually obligated. Since 1989 the data indicates $1,439,780 which represents 5% of the total obligated funds ($30,730,434) in the Lower Gunnison Unit have been contracted for installing wildlife practices (Table 1). To date approximately 46% of the wildlife funds and 2% of the total funds have been spent on wildlife. $355,059 of obligated wildlife money has not been spent to date. That figure does not include CRSCP contracts, since all the contracts are completed. Obligated wildlife money has not yet been spent due to projects being cancelled and, since contracts are 3 to 10 years in duration, projects planned in 2005 may not be applied for several years. In 2003, EQIP contracts' durations were changed to a minimum of 1 year after the last practice is installed. Twenty-eight percent of all contracts developed since 1989 have at least 1 wildlife practice planned for application and **12% have applied at least 1 wildlife practice** (Table 2).

Table 1: Money obligated and spent on wildlife practices.

OFFICE	YEAR	TOTAL CONTRACT DOLLARS	PLANNED WILDLIFE CONTRACT DOLLARS	APPLIED WILDLIFE CONTRACT DOLLARS	PERCENT PLANNED TO SPEND ON WILDLIFE	PERCENT OF WILDLIFE DOLLARS SPENT TO-DATE:	PERCENT OF TOTAL DOLLARS SPENT ON WILDLIFE TO-DATE
Montrose		$2,476,057	$318,193.00	$171,315.00	13%	54%	7%
Delta		$6,608,486	$194,373.00	$135,266.00	3%	70%	2%
CRSCP	1989-1995	$9,084,543	$512,566.00	$306,581.00	6%	60%	3%
EQIP							
MONTROSE							
	1996	$858,596.00	$45,536.00	$33,922.00	5%	74%	4%
	1997	$495,230.00	$9,825.00	$3,988.00	2%	41%	1%
	1998	$420,078.00	$5,051.00	$3,411.00	1%	68%	1%
	1999	$358,994.00	$18,400.00	$14,299.00	5%	78%	4%
	2000	$343,171.00	$34,557.00	$15,935.00	10%	46%	5%
	2001	$477,885.00	$48,952.00	$23,584.00	10%	48%	5%
	2002	$807,705.00	$66,188.00	$13,192.00	8%	20%	2%
	2003	$1,846,066.00	$38,711.00	$12,343.00	2%	32%	1%
	2004	$2,285,605.00	$157,248.00	$0	7%	0%	0%
	2005	$1,952,399.00	$43,691.00	$0	2%	0%	0%
	BSPP	$1,052,189.00	$70,373.00	$3,797.00	7%	5%	0%
	SUBTOTAL	$10,897,918.00	$538,532.00	$124,471.00	5%	23%	1%
DELTA							
	1996	$719,698.00	$23,701.00	$5,734.00	3%	24%	0.7%
	1997	$159,132.00	$0.00	$0.00	0%	0%	0%
	1998	$147,205.00	$2,997.00	$456.00	2%	15%	0.3%
	1999	$606,008.00	$75,509.00	$61,129.00	11%	81%	9%
	2000	$339,017.00	$1,254.00	$672.00	0.3%	54%	0.2%

	2001	$413,060.00	$0.00	$0.00	0%	0%	0%
	2002	$919,016.00	$25.00	$0.00	0%	0%	0%
	2003	$1,845,829.00	$28,976.00	$23,518.00	2%	81%	1%
	2004	$2,099,424.00	$7,721.00	$0.00	.4%	0%	0%
	2005	$2,151,099.00	$17,720	$0.00	.8%	0.0%	0%
	BSPP	$1,348,485.00	$230,779.00	$139,079.00	17%	60%	10%
	SUBTOTAL	$10,747,973	$388,682.00	$230,588.00	4%	60%	2%
BOTH 1996-2005	TOTAL	$21,645,891.00	$927,214.00	$355,059.00	4%	38%	2%
	Total -ALL	$30,730,434.00	$1,439,780	$661,639.00	5%	46%	2%

Table 2. Number and percent of contracts planning and/or applying wildlife practices.

OFFICE	YEAR	TOTAL # OF CONTRACTS	# OF CONTRACTS WITH PLANNED WILDLIFE PRACTICES	PERCENT CONTRACTS WITH PLANNED WILDLIFE PRACTICES	# OF CONTRACTS WITH APPLIED WILDLIFE PRACTICES	PERCENT OF WILDLIFE CONTRACTS WITH APPLIED WILDLIFE PRACTICES	PERCENT OF ALL CONTRACTS THAT HAVE APPLIED WILDLIFE PRACTICES
Montrose		142	64	45%	59	92%	41%
Delta		197	75	39%	33	44%	18%
CRSCP	1989-1995	339	139	41%	92	66%	27%
MONTROSE	1996	36	31	86%	25	81%	69%
	1997	63	13	21%	9	69%	14%
	1998	38	7	18%	4	57%	11%
	1999	22	6	27%	4	67%	18%
	2000	27	16	59%	8	50%	30%
	2001	29	19	66%	8	42%	28%
	2002	47	12	26%	3	25%	6%
	2003	18	7	39%	3	43%	17%
	2004	75	7	9%	1	14%	1%
	2005	57	4	7%	0	0%	0%
BSPP	1997-2005	58	6	10%	4	67%	7%
	SUBTOTAL	406	128	32%	69	54%	17%
DELTA	1996	29	8	28%	5	62.5%	19%
	1997	23	2	9%	2	100%	9%
	1998	7	1	14%	1	100%	14%
	1999	38	9	24%	9	100%	26%
	2000	18	1	6%	1	100%	6%
	2001	17	0	0%	0	0%	0%
	2002	31	1	3%	0	0%	0%
	2003	22	4	18%	3	75%	25%
	2004	65	2	3%	0	0%	0%
	2005	47	1	2%	0	0%	0%
BSPP	1997-2005	37	4	11%	2	50%	10%
	SUBTOTAL	331	33	10%	23	70%	7%
BOTH – 1996-2005	TOTAL	737	161	22%	92	57%	12%
	Total -ALL	1076	300	28%	184	61%	17%

Table 3 outlines the acres of habitat management planned and applied. Approximately 425 acres of wetland habitat and 1020 acres of upland habitat have planned management practices. Habitat management practices have been applied to 240 acres of wetland and 536 acres of upland habitat. To date 57% of planned wetland management and 53% of upland management practices have been applied. There were no reported wetland impacts positive or negative.

Table 3. Acres of wildlife habitat management planned and applied and wetland impacts.

OFFICE	YEAR	ACRES OF WETLAND HABITAT PLANNED	ACRES OF WETLAND HABITAT APPLIED	% OF PLANNED WETLAND ACRES APPLIED	ACRES OF UPLAND HABITAT PLANNED	ACRES OF UPLAND HABITAT APPLIED	% OF PLANNED UPLAND ACRES APPLIED	ACRES OF WETLANDS IMPACTED	WETLAND VALUE BEFORE	WETLAND VALUE AFTER
Montrose		129.8	97.4	75%	180	108.9	61%	No Data	No Data	No Data
Delta		70.5	35.2	50%	136.2	83.1	61%	No Data	No Data	No Data
CRSCP	1989-95	200.3	133	66%	316.2	192	61%			
MONTROSE	1996	17.5	11.4	65%	29.2	17.7	60%			
	1997	14.1	13.1	93%	32	27.3	85%			
	1998	3.5	1.5	43%	4.4	3.2	73%			
	1999	16.1	7.5	47%	6.0	3.0	50%			
	2000	10.8	6.0	51%	48.6	3.3	7%			
	2001	7.2	0.0	0.0%	75.4	5.0	7%			
	2002	7.5	3.0	40%	18.0	8.5	47%			
	2003	23.7	0	0%	23	0	0%			
	2004	16.5	0	0%	136	0	0%			
	2005	9	0	0	13.5	0	0			
	BSPP	31.9	6	19%	37.1	2	5%			
	SUB TOTAL	157.8	61	39%	415.4	170.9	41%	No Data	No Data	No Data
DELTA	1996	21	21	100%	61.2	61.2	100%	4	1.4	3.0
	1997	10	10	100%	45.9	45.9	100%	2	1.8	1.9
	1998	4.4	4.4	100%	15.8	14.2	90%	1	.6	1.6
	1999	5	5	100%	19.2	19.2	100%	1	1.1	1.2
	2000	0	0	0%	11.2	6.0	54%			
	2001	0	0	0%	0.0	0.0	0%			
	2002	.5	0	0%	2.5	0.0	0%			
	2003	2	1	50%	35.7	16.2	45%			
	2004	0	0	0%	11.2	0	0%			
	2005	1.5	0	0%	18	0	0%			
	BSPP	22.6	5.0	22%	67.8	10.0	15%			
	SUB TOTAL	67	46.4	69%	288.5	172.7	60%	No Data	No Data	No Data
BOTH-1996-2006	TOTAL	225	107	48%	704	344	49%			
	Total-ALL	425	240	57%	1020	536	53%			

Calculated Habitat Unit Values (HUV's) for both the Montrose and Delta field office's years 1996-2005 are displayed in table 4. This data also includes WRP, WHIP and BSPP projects. To date with 61% of the planned wildlife practices actually applied, total HUV's after application are 35 less than before application. Since the inception of the program there has been a positive gain for all species models except mallard winter habitat and marsh wren.

Table 4: Habitat impacts estimated with mean Habitat Unit Values.

Species	**CRSCP 1989-1995 HUV's**	**I-EQIP & EQIP 1996-2004 HUV's**	**I-EQIP & EQIP 1996-2005 HUV's**	**Net-change in HUV's from yr. 2004 to yr. 2005**
Pheasant	+210	+601	+664	+63
Yellow warbler	+1	-1.2	-.4	+0.8
Mallard - breeding habitat	+79	+83	+76	-.7
Mallard – winter habitat	+128	-1113	-1235	-122
Meadow vole	+43	+161	+177	+16
Marsh Wren	+16	+28	+32	+4
Screech owl	+123	+296	+306	+10
Total	+600	+54	+18	-35

Discussion & Conclusion:

It is difficult to assess EQIP's effectiveness in replacing wildlife habitat values as most contracts have not been completed and wildlife practices are often the last practices in a contract to be applied. Data analysis indicates except for mallard winter habitat and yellow warbler, replacement of habitat loss is almost being achieved. Mallard winter habitat is decreasing due to a change in crops grown. Through out the project area less grain crops are grown each year, replaced by hay and truck crops. The mallard winter habitat model is sensitive to crop changes. The salinity project is only .8 HUV's behind in replacement of yellow warbler habitat. Several large projects which target replacing yellow warbler and marsh wren habitat are currently being installed. The completion of those projects is estimated to significantly improve HUV's for those species.

The Lower Gunnison Unit tracks impacts by habitat values rather than acres. Acres of habitat management and impacts to wetlands have also been tracked as other indicators of impacts. Wetland impacts' accounting indicates there is no data. This tracking responsibility has been overlooked and needs to be addressed by management.

In addition to the wildlife practices planned and applied with EQIP priority funds, several wildlife benefiting projects were funded with Wildlife Habitat Incentives Program (WHIP) and Wetland Reserve Program (WRP) funds in the priority area. Since 1996, twelve WHIP contracts and 1 WRP contract totaling over $90,000 have been completed benefiting 184.9 acres of upland wildlife habitat and 32.6 acres of wetland wildlife habitat in the priority area. These were included in the HEP analysis. Three addition WHIP contracts are within the priority area, but have not yet been completed.

M&E EXECUTIVE SUMMARY – WILDLIFE - 2005

Lower Gunnison Unit

HEP/HSI involving accomplishments made by CRBSCP, I-EQIP, EQIP, Parallel Program, WHIP and WRP.

Species	Cumulative HUV's 2004	Cumulative HUV's 2005	Net Change for 2005
Pheasant	+601	+664	+63
Mallard Winter	-1113	-1235	-122
Mallard Breeding	83	+76	-7
Yellow Warbler	-1.2	-0.4	-0.8
Meadow Vole	+161	+177	+16
Marsh Wren	+28	+32	+4
Screech Owl	+296	+306	+10
TOTAL	+54	+18	-35

Acres of Wildlife Habitat Applied

	Cumulative Acres 2004	Cumulative Acres 2005	Net Change for 2005
Upland	423.8	536	+112.2
Wetland	206.7	240	33.3

Wetland Data

Cumulative acres impacted year 2004	Cumulative acres impacted year 2005	NET AREM Unit change 2004	Net AREM Unit change 2005	Net change for 2005
No Data	No Data	No Data	No Data	No Data

Funding for Wildlife Habitat

% of total funds spent on wildlife through 2004	% of total funds spent on wildlife through 2005
1%	2%
% of total funds contracted on wildlife through 2004	**% of total funds contracted for wildlife through 2005**
5%	5%

Twelve Wildlife Incentives Program (WHIP) contracts and 1 Wetland Reserve program (WRP) contract have contributed over $90,000 to wildlife benefiting practices in the unit, improving 185 acres of upland and 33 acres of wetland habitat. Except for funding, habitat data for these programs is included in the above tables.